

REMARKS

Claims 1-19 are pending in the present application. All of these claims stand rejected. The Applicants request reconsideration of the rejections of these claims, as well as objections, presented in the Office Action based on the following remarks.

The drawings were objected to due to an asserted lack of clearly viewable lines and numeric labels. The replacement sheets of the drawings included with this amendment are believed to address and resolve this objection.

The title of the invention was objected to as not being descriptive. By this amendment, the title has been amended to bear the suggested title presented in the present Office Action. Accordingly, this objection is believed to be resolved.

The disclosure was objected to due to the referenced “thesis” on page 10, line 7, 18 and 33. The amendments to the specification are believed to address and resolve this objection and are not believed to add new matter. Specifically, the objected referenced thesis refer to a reverse power control algorithm for a CDMA system that was discussed in the Journal of China Institute of Communications, vol. 19, no. 10 in an article or “thesis” entitled: “An Uplink Power Control Scheme in CDMA Mobile Communication System.” This article was discussed in the present application in the paragraph starting on line 24 of page 2 of the present application. Accordingly, the references to in this “thesis” or article have been amended to more clearly reference the specific publication and withdrawal of the objection is requested.

Claim 2 was objected to due to an informality due to the recitation of “EBR,” rather than the intended “BER.” The amendment to claim 2 is believed to address and resolve this rejection.

Claims 1-19 were rejected under 35 USC § 112, second paragraph, as being allegedly indefinite. The Applicants respectfully traverse this rejection for the following reasons.

With respect to claim 1, the Office Action asserts that the claimed element of “calculating a degree of a SNR threshold adjusting step” and “the calculated degree of the SNR threshold adjusting step” is unclear. Similarly, the claimed “determining and actual SNR threshold adjusting step” and “the actual SNR threshold adjusting step” are asserted as being unclear. The

Amendments to the Drawings:

The attached sheets of drawings include changes to FIGS. 1, 2, and 4-8. These sheets, which include FIGS. 1-8 replace the original sheets including these figures. In particular, in FIGS. 1 and 2, the lines 100, 110 and 120 in FIG. 1 and in FIG. 2 have been darkened to ensure they are clearly viewable. With respect to FIGS. 4-8, darker copies of the figures have been provided where the numeric labels and legends on the x and y axis of the graphs are now believed to be clearly viewable.

Attachments: Replacement Sheets

amendment to claim 1 adding the word “value” after the word “step” to each of these claimed elements is believed to address and resolve this rejection. Support for this amendment may be found, as an example, in lines 19-24 on page 7 of the present application where the specification makes it clear that the adjusting step is a value. Accordingly, no new matter is believed to be added by this amendment. In light of the foregoing, the Applicants respectfully requests reconsideration and withdrawal of this rejection.

Claims 2-10 were rejected under 35 USC § 112, second paragraph, due to their dependency on rejected claim 1. The resolution of the rejection of claim 1 is believed to also resolve the rejections of claims 2-10. Similarly, claims 11-14 were rejected based solely on their dependency on claim 1, and the rejections of these claims are also believed to be resolved.

Claim 15 was rejected under 35 USC § 112, second paragraph, for claim elements similar to claim 1; namely a claimed “SNR threshold adjusting step.” The amendment to this claim is believed to address and resolve this rejection.

Claims 16-19 were rejected under 35 USC § 112, second paragraph, for the same reasons as claim 15. The resolution of the rejection of claim 15 is believed to resolve the rejections of these claims.

Claims 1-5 and 11 were rejected under 35 USC § 103(a) as being unpatentable over Vembu (U.S. Patent No. 6,259,928) in view of Dohi (U.S. Patent No. 6,341,224). The Applicants respectfully traverse this rejection for the following reasons.

In rejecting claim 1, the Office Action asserts that Vembu discloses all of the elements of claim 1 except for disclosing BER and the change of the error. In order to overcome these shortcomings, the Office Action asserts that Dohi teaches measuring a bit error rate, the Office Action then asserts calculating an error between measured BER and the target BER, and a change of the error, that it would have been obvious to one of ordinary skill in the art to measure BER calculate change of error BER in order to determine a target signal to interference ratio as taught by Dohi and incorporate this with the system of Vembu in order to achieve transmission power control providing consistent channel quality irrespective of propagation or environment. The Applicant respectfully disagrees with all of these assertions for the following reasons.

Claim 1 features a method for controlling outer loop power including “measuring a BER, and calculating an error between measured BER and a target BER and a variance value of the error.” Based on the error between measured BER and target BER and the variance value of the error, the claimed method also includes “determining an actual SNR threshold adjusting step value based on the calculated grade of the SNR threshold adjusting step value,” and “adjusting a SNR threshold in accordance with the actual SNR threshold adjusting step value.” Although Vembu discloses a method for controlling outer loop power, the taught method of Vembu adjusts a signal-to-noise (SNR) threshold 204 based on the input of the number of frame errors occurring in the last N frames, if the number of frame errors occurring in the last N frame is above an established number, the SNR 208 is compared with the threshold SNR 204. (See col. 10, lines 27-45). Thus, the characterization in the present Office Action that Vembu teaches “calculating an error between measured FER and a target FER” is incorrect because no error calculation is performed in Vemba, just a comparison of SNR to a SNR threshold. Moreover, the actual variables input in Vembu to adjust the SNR threshold (i.e., number of frame errors and comparison of SNR to SNR threshold) are completely different from the calculated error “between measured BER and a target BER and a variance value of the error” as featured in claim 1. Accordingly, the Applicants respectfully submit that Vembu does not teach or suggest all of the claimed elements.

Additionally, although the present Office Action asserts that Dohi teaches “calculating an error between measured BER and a target BER and a change of the error,” this assertion is incorrect. Dohi actually discloses “an instruction to decrease the SIR target value by a predetermined step width when number of bit errors in measured pilot signals or a moving average thereof is smaller than a setting value,” and “to increase the SIR target value by a predetermined step width when the number of bit errors or a moving average thereof is greater than the setting value.” (See col. 3, lines 46-54).

Moreover, the Office Action asserts that in col. 6, lines 50-56, Dohi teaches “average error is the change of the error.” The Applicants respectfully disagree and submit that the “average error” disclosed in Dohi is simply referring to how many errors occur on average. In contrast, claim 1 features “a variance value of the error,” which is a change of the error and refers to a difference between a current error and a previous error. Thus, the disclosed “average

error” in Dohi is different from the claimed “variance value of the error.” Accordingly, the Applicants respectfully submit that Dohi does not teach or suggest those claim features of claim 1 that it is asserted as teaching.

Additionally, the Applicants respectfully submit that one of ordinary skill in the art would not have been motivated to combine the teachings of Dohi with Vembu. In particular, Vembu teaches increasing an SNR threshold, decreasing the threshold or maintaining the threshold, but does not teach the value of the change of the threshold. Dohi only discloses that a value to increase or decrease a target SIR is a predetermined value.

Claim 1 also features “determining a grade of the error and a grade of the variance value of the error.” The Applicants respectfully submit that neither Vembu or Dohi teach or suggest this feature. In particular, the Office Action has asserted that Vembu discloses “determining a degree of the error” and refers to Figure 5, col. 11, lines 16-25, and col. 9, lines 5-67. In particular, the Office Action asserts that determining the count of the total number of errors is the equivalent of determining a degree or grade of the error. This assertion is incorrect as a simple count simply does not provide enough information to determine a degree or grade of an error. Moreover, this claim feature is also not taught or suggested by Dohi. Accordingly, the cited references, either combined or taken separately, fail to teach or suggest this element.

In light of the foregoing, the Applicants respectfully submit that the cited references, either combined or taken separately, do not teach or suggest all of the elements of claim 1 and that, further, it would not have been obvious to combine the teachings of Dohi with Vembu to arrive at the claimed features. Accordingly, withdrawal of the rejection is requested

With respect to claims 2-4 and 11, the Applicants respectfully submit that these claims are allowable on their merits and also due to their dependency on independent claim 1.

It is noted that the rejection under 35 USC § 103(a) includes claim 5. However, the present Office Action fails to address the rejection of claim 5. Furthermore, claim 5 is indicated in paragraph 9 of the Office Action as being allowable. Accordingly, the Applicants assume that the indication that claim 5 was rejected under 35 USC § 103(a) is a typographical error.

The Applicants thank the Examiner for indicating the allowability of claims 5-10 and 12-19 if rewritten to overcome the rejection under 35 USC § 112, second paragraph. These claims have not been rewritten at this time, however, pending reconsideration of the rejection of claim 1.

Of final note, claims 1, 3-7, and 11-14 have also been amended to change the term "degree" to "grade." This change is believed to simply substitute synonymous terms and not add any new matter, accordingly. Furthermore, claims 1-7 have also been amended to change "a change of error" to "a variance value of the error." Again, this change is believed to merely substitute synonymous terms and, thus, does not add new matter. Furthermore, it is noted that these changes are made for purposes of clarification only and are not related to the patentability of these claims under §§ 112, 102, or 103.

In light of the foregoing, Applicant respectfully submits that the present application is in condition for allowance and respectfully requests that a Notice of Allowance be issued in this case.

Respectfully submitted,

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Attachments
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